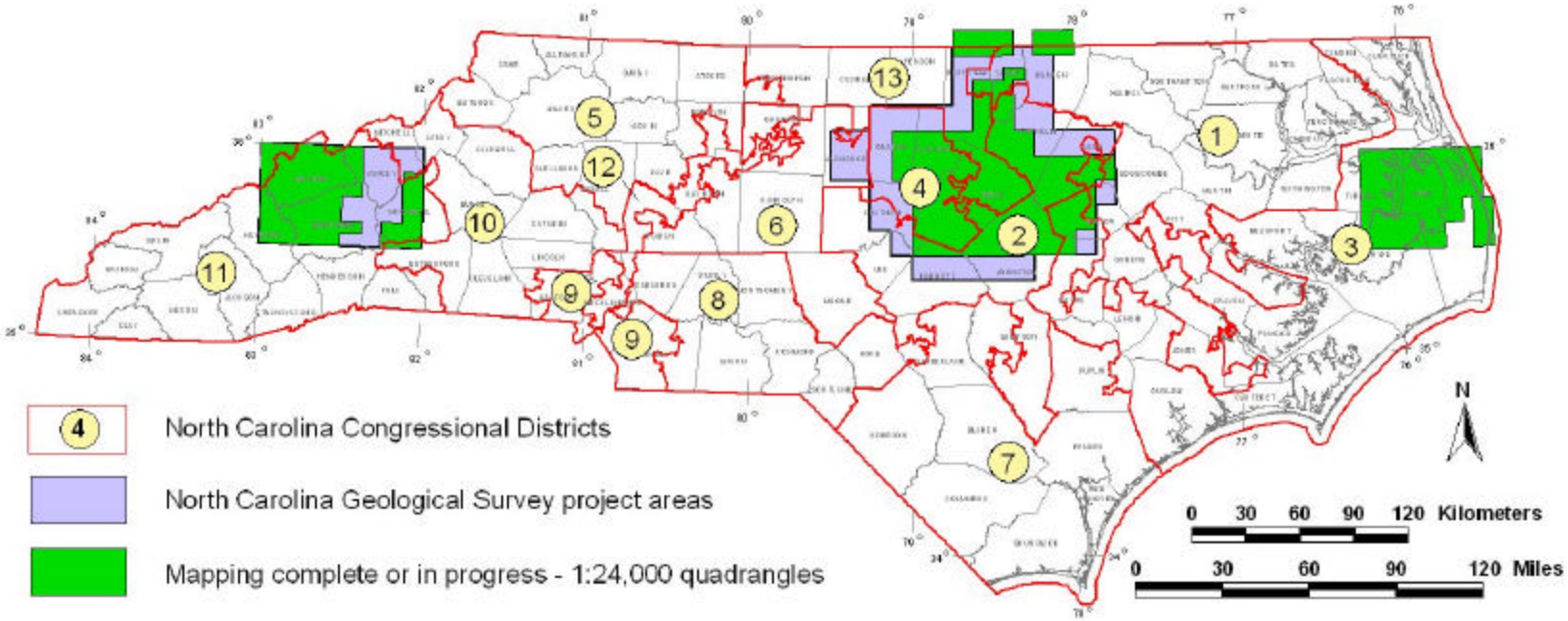
National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping

NORTH CAROLINA - 2005



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SUMMARY OF STATEMAP
GEOLOGIC MAPPING PROGRAM IN NORTH CAROLINA

NCGS Project Yr	Federal FY	Project Title All project areas are 7.5-minute quadrangles mapped at 1:24,0000 unless noted.	State Dollars	Federal Dollars	Total Project Dollars
1	93	Bunn West, Zebulon, Middlesex, Stancils Chapel, Clayton	$21,000	$21,000	$42,000
2	94	Kenly East, Kenly West, Flowers, Selma, Bunn East, Cokesbury, Raleigh West(1/2)	50,000	50,000	100,000
3	95	Spring Hope, Bailey, Lucama, Rolesville, Knightdale, Edmondson, Garner, Angier	60,000	60,000	120,000
4	96	Lucama*, Kenly East*, Kenly West*, Stancils Chapel*, Green Level, Lake Wheeler, Fines Creek, Bald Creek, Enka (1/2)	112,436	112,436	224,872
5	97	Bailey*, Middlesex*, Zebulon*, Flowers*, Selma*, Apex (1/2), Cary (1/2), and Raleigh East	146,264	146,264	292,528
6	98	Clayton*, Knightdale*, Powhatan*, Spring Hope*, Fuquay-Varina	122,009	122,009	244,018
7	99	Angier*, Edmondson*, Sams Gap, Enka (1/2), Asheville (1/2)	117,302	117,302	234,604
8	00	Fuquay-Varina*, Garner*, Lake Wheeler*, Weaverville (1/2), White Rock (1/2), Kittrell (1/4), and Henderson (1/4)	123,577	123,577	247,154
9	01	Bunn East*, Bunn West*, Apex*, Cokesbury*, Lemon Gap, Asheville (1/2), Weaverville (1/2), Marshall (1/2), Creedmoor, Franklinton (1/2), Kittrell (1/4), Oxford (1/4), and Wilton (1/4)	232,506	232,506	465,012
10	02	Compilation bedrock map of the Raleigh 1:100,000 quadrangle, Spring Creek, Marshall (1/2), Northwest Durham, Northeast Durham, Wilton (1/2)	240,250	240,233	480,483
11	03	Leicester (1/2), Paint Rock, Henderson (3/4), Chapel Hill, portions of Manteo and Plymouth 1:100,000 quadrangles	160,868	160,503	321,371
12	04	Leicester (1/2), Oteen (1/2), Hillsborough, Middleburg (1/4), Townsville (1/4)	130,390	128,519	258,909
		TOTALS	**1,516,602**	**1,514,349**	**3,030,951**

*Geologic mapping of Coastal Plain units only. Bedrock geology previously mapped.

PROJECT OVERVIEW:

The North Carolina Geological Survey (NCGS) receives federal funding for conducting detailed geologic mapping from the STATEMAP program, a component of the National Cooperative Geologic Mapping Program. Since 1992, the NCGS has received over $1.5 million in funding. Because the STATEMAP program requires that every federal dollar be matched by a state dollar, over $3 million have been allocated to mapping in this program. The NCGS has concentrated its 1:24,000-scale detailed mapping in three areas: Raleigh, Asheville, and the northeastern Coastal Plain. These areas are some of the most populous and rapidly growing regions of the state. This rapid growth has accentuated many geologic-related problems including land-use and infrastructure planning; mineral resource identification; and environmental assessment and planning related to highway construction, waste disposal siting, and ground-water conservation and development. An adequate understanding of the geology and mineral resources of these regions is needed to help resolve these problems.

STATEMAP OF OUTCOME:

The Raleigh 1:100,000-scale quadrangle was mapped in its entirety by COGEOMAP and STATEMAP funds from 1989 to 2002. In 2003, the geologic mapping was used as a main base layer in the Wake County Comprehensive Groundwater Assessment Program. Wake County is home to the City of Raleigh, North Carolina's state capital and one of the fastest growing urban areas in the state. Prior to the introduction of the new STATEMAP mapping, county officials and their contractors were using the 1:500,000-scale State Geologic Map of North Carolina as their geologic base. This scale proved inappropriate to map hydrogeologic units at the county scale. After providing the 1:24,000-scale geologic maps (and electronic shape files) to Wake County, NCGS staff worked with county officials and their contractors to create a hydrogeologic map of the county, from which further groundwater resources investigations were conducted. County officials remarked that the involvement of NCGS was essential for the project's success.